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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,644

03/02/2007

Robert Gustar

7689P001

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7590

06/05/2009

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EXAMINER

LEE, BRENTIRA M

ART UNIT

PAPER NUMBER

2889

MAIL DATE

DELIVERY MODE

06/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,644	<b>Applicant(s)</b> GUSTAR ET AL.	
	<b>Examiner</b> BRENITRA M. LEE	<b>Art Unit</b> 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21, 23, 24-26 and 28-31 is/are rejected.
- 7) ☒ Claim(s) 22 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to the applicant's communication filed on 02 March 2007. In virtue of this communication, claims 1-31 currently presented in the instant application.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "diffuser layer" in claim 17 and the "photoresistor" in claim 27 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must

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be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 25 recites the limitation "wherein the curved surface is a cylindrical surface" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the claim will be interpreted by the examiner as dependant upon claim 24, since claim 24 discloses a curved surface.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1-16, 20-21, 23, and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Shi et al. (U.S. Patent 5,693,962).

With respect to claim 1, Shi et al. discloses in Figs. 5 and 6 A light-emitting panel, comprising: a transparent substrate (100); a plurality of electroluminescent elements (202, 203, 204) on the surface of the transparent substrate (100); and electrical supply means (103 - dielectric strip) (Col. 3, line 28) (101, 106, 108, 110, 115 – conductive strip) (Col. 3, lines 60-61; Col. 4, line 51; Col. 5, lines 7, 29, and 55) arranged between the electroluminescent elements (202, 203, 204) arranged so that an alternating voltage is applied across each of the electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate (Col. 7, lines 8-18).

The recitation that an element “can be”, as cited in line 5, used to perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

With respect to claim 2, Shi et al. discloses all the limitations as expressly recited in claim 1, and further disclose the electroluminescent elements are in the form of elongate strips of electroluminescent material (Col. 2, lines 53-57)

With respect to claim 3, Shi et al. discloses all the limitations as expressly recited in claim 1, and further discloses the electrical supply means comprises a plurality of dielectric elements (103) located between the electroluminescent elements (202, 203, 204), and a plurality of conductive elements (106, 108, 110, 115) in contact with the dielectric elements (103).

With respect to claim 4, Shi et al. discloses all the limitations as expressly recited in claim 3, and further discloses an alternating voltage source connected to the conductive elements (106, 108, 110, 115) in such a way that the charge on adjacent dielectric elements oscillates and all of the electroluminescent elements are activated simultaneously (Col. 6, lines 66-67; Col. 7, lines 1-7 and 19-20).

With respect to claim 5, Shi et al. discloses all the limitations as expressly recited in claim 3, and further discloses an alternating voltage source connected to the conductive elements in pairs so that alternate electroluminescent elements are activated (Col. 7, lines 8-18).

With respect to claim 6, Shi et al. discloses all the limitations as expressly recited in claim 3, and further discloses an alternating voltage source connected to the conductive elements (Col. 6, lines 66-67, Col. 7, lines 1-7)

The recitation "in such a way that three or more adjacent dielectric elements are raised to the same voltage, so that the spacing between activated elements is at least two" cited in lines 2-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 7, Shi et al. discloses all the limitations as expressly recited in claim 3, and further discloses an alternating voltage source connected to the conductive elements (Col. 6, lines 66-67, Col. 7, lines 1-7).

The recitation "in such a way that adjacent electroluminescent elements are sequentially activated so as to give the impression that a light source moves along the panel" cited in lines 2-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 8, Shi et al. discloses all the limitations as expressly recited in claim 3, and further discloses in Fig. 5, each dielectric element (103) extends at a proximal side to the surface of the transparent substrate (100) at a gap between adjacent electroluminescent elements (202, 203, 204), and protrudes at a distal side further away from the substrate than the electroluminescent elements.

With respect to claim 9, Shi et al. discloses in Fig. 3, the conductive elements (108) are located on the distal side of the dielectric elements (103).

With respect to claim 10, Shi et al. discloses all the limitations as expressly recited in claim 3, and further discloses each conductive element (115) is located at the surface of the transparent substrate (100) in a gap between adjacent electroluminescent elements (202, 203, 204), and is completely enclosed by a dielectric element (103) so that it does not contact an electroluminescent element (202, 203, 204).

With respect to claim 11, Shi et al. discloses all the limitations as expressly recited in claim 1, and further discloses the electroluminescent elements emit light of different colors (Col. 4, lines 43-45; Col. 5, lines 1-4 and 22-26).

With respect to claim 12, Shi et al. discloses in Figs. 5 and 6, a light-emitting panel comprising a transparent substrate (100), a first array of electroluminescent elements (202, 203, 204) arranged to emit light of a first colour, and a second array of electroluminescent elements arranged to emit light of a second colour (Col. 4, lines 43-45; Col. 5, lines 1-4 and 22-26).

With respect to claim 13 and 14, Shi et al. discloses in Figs. 5 and 6, a light-emitting panel comprising a first array of electroluminescent elements arranged to emit light of a first colour, and a second array of electroluminescent elements arranged to emit light of a second colour and a third array of electroluminescent elements arranged to emit light of a third colour (Col. 4, lines 43-45; Col. 5, lines 1-4 and 22-26).

With respect to claim 15, Shi et al. discloses all the limitations as expressly recited in claim 13, and further discloses the arrays are arranged so that the electroluminescent elements in different arrays are activatable simultaneously so that the panel appears to emit light of a colour made up of a combination of the colours emitted by the different arrays (Col. 6, lines 66-67; Col. 7, lines 1-20).

With respect to claim 16, the recitation "the intensity of light emitted by different arrays is variable so that the apparent shade of light emitted by the



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panel is variable in response to a change in the intensity of light emitted by one or more the arrays relative to the light emitted by the other array(s)" cited in lines 1-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 20, Shi et al. discloses in Figs. 5 and 6 a plurality of selectively actuatable arrays of electroluminescent elements (202, 203, 204) (Col. 6, lines 66-67, Col. 7, lines 1-7).

The recitation "so that different shapes can be illuminated by activating different arrays" cited in lines 2-3 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 21, Shi et al. discloses all the limitations as expressly recited in claim 20, and further discloses the arrays are at least partially superimposed to one another (See Figs. 5 and 6).

With respect to claim 23, Shi et al. discloses in Figs. 5 and 6, A light-emitting panel, comprising: a transparent substrate (100); a plurality of electroluminescent elements (202, 203, 204) on the surface of the transparent

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substrate (100); a plurality of dielectric elements (103) located between the electroluminescent elements (202, 203, 204); and a plurality of conductive elements (106, 108, 110, 115) in contact with the dielectric elements (103), arranged so that a voltage can be applied across each of the plurality of electroluminescent elements (Col. 6, lines 66-67, Col. 7, lines 1-7).

With respect to claim 28, Shi et al. discloses a method of manufacturing a light-emitting panel, comprising: depositing a plurality of electroluminescent elements (202, 203, 204) on a transparent substrate (100); depositing a plurality of dielectric elements (103) on the substrate (100) in the gaps between the electroluminescent elements (202, 203, 204) so that the dielectric elements (103) extend further away from the substrate than the electroluminescent elements; and depositing a conductive element on the top of each dielectric element (115) (Col. 6, lines 47-52).

With respect to claim 29, Shi et al. discloses a method of emitting light from a light-emitting panel: supplying an alternating voltage to alternate conductive elements so that each electroluminescent element is provided with an alternating voltage across it and emits light (Col. 6, lines 66-67, Col. 7, lines 1-20).

With respect to claim 30 and 31, Shi et al. discloses a method of emitting light from a light-emitting panel comprising: supplying an alternating voltage to adjacent pairs of conductive elements so as to activate a first set of alternate electroluminescent elements to emit light and altering the adjacent pairs of conductive elements to which the alternating voltage is supplied so as to activate

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a second set of alternate electroluminescent elements to emit light (Col. 6, lines 66-67, Col. 7, lines 1-20).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. (U.S. Patent 5,693,962) in view of Song et al. (U.S. Patent Application Publication 2005/0231085 A1).

With respect to claim 17, Shi et al. discloses all the limitations as expressly recited in claim 1. Shi et al. does not disclose a diffuser layer.

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Song et al. discloses in Fig. 10 a diffuser layer (19) in order to improve the light coupling efficiency (para. 0013, para. 0043, lines 9-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the light emitting panel of Shi et al. and incorporate the diffuser layer of Song et al. to improve the light coupling efficiency.

With respect to claim 18 and 19, Shi et al. discloses all the limitations as expressly recited in claim 1. Shi et al. does not disclose a transparent layer arranged on the opposite side of the panel to the transparent substrate.

Song et al. discloses in Fig. 10, a transparent layer (19) arranged on the opposite side of the panel to the transparent substrate in order to form a flat panel display device that is of dual emission type (para. 0055, lines 10-13)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the light emitting panel of Shi et al. and incorporate the transparent layer of Song et al. to have a panel that is a dual emission type.

11. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. (U.S. Patent 5,693,962) in view of Takeuchi (U.S. Patent Application Publication 2005/0110388 A1).

With respect to claims 24, Shi et al. discloses all the limitations as expressly recited in claim 23. Shi et al. does not disclose the transparent substrate is a curved or cylindrical surface.

Takeuchi discloses that the surface of the transparent substrate is a curved or cylindrical in order to be used in displays of different shapes (para. 0091).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the light emitting panel of Shi et al. and incorporate a curved substrate surface as taught by Takeuchi to have light emitting panels for displays of different shapes.

12. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. (U.S. Patent 5,693,962) in view of Hubbell (U.S. Patent 6,422,714 B1).

With respect to claim 26, Shi et al. discloses all the limitations as expressly recited in the depended upon claims. Shi et al. does not disclose a sign panel.

Hubbell discloses in Fig. 2, a sign panel with a transparent, retroreflective layer (10, 12) (Col. 3, lines 8-9, Col. 4, lines 45-47) arranged on the opposite side of the transparent substrate to the electroluminescent elements in order to ensure view of the illuminated sign at night before the retro-reflective properties are activated (Col. 1, lines 65-67, Col. 2, lines 1-4). In Fig. 2, Hubbell discloses an electroluminescent panel and the transparent retroreflective layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the light emitting panel of Shi et al. and replace it for the electroluminescent panel of Hubbell and have it opposing the transparent retroreflective substrate to ensure view of the illuminated sign at night before the retro-reflective properties are activated.

***Allowable Subject Matter***

**13.** Claims 22 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

**14.** The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shi et al. (U.S. Patent 5,736,754) discloses an organic full color light emitting diode array including a plurality of spaced apart electrically conductive strips formed on a semiconductor substrate.

Hirano et al. (U.S. Patent 6,120,338) discloses a method of manufacturing an organic EL display capable of decreasing the resistance of scanning side electrodes and improving the efficiency of utilization of light emitted in organic layers.

Duggal (U.S. Patent 6,841,949 B2) discloses a light emitting device that contains an array of organic light emitting diodes emitting a plurality of colors, and a layer of scattering media above the light emitting surface of the OLED array.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENITRA M. LEE whose telephone number is (571)270-7552. The examiner can normally be reached on Monday-Friday 7:30 am - 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2889

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